

**Claim Listing:**

1. (Original) A nuclear camera system comprising:
  - a detector which acquires radionuclide event data;
  - an image processor which processes the event data to produce image data;
  - an image data storage medium which stores the image data; and
  - an image data processor which formats the image data for storage on the storage medium in an extensible and open data format.
2. (Original) The nuclear camera system of Claim 1, wherein the image data processor formats the image data in xml format.
3. (Original) The nuclear camera system of Claim 1 or 2, wherein the data format is self-descriptive.
4. (Original) The nuclear camera system of Claim 3, wherein the data format further comprises format definitions which are available with the image data.
5. (Original) The nuclear camera system of Claim 4, wherein a format definition describes the relationship between two or more pieces of image data.
6. (Original) The nuclear camera system of Claim 5, wherein the image data is stored in a data file; and wherein the image data file contains a pointer to a file storing a definition of the image data format.
7. (Original) The nuclear camera system of Claim 6, wherein the pointer is to an address of a file stored on the nuclear camera system.
8. (Original) The nuclear camera system of Claim 6, wherein the pointer is to a URL address where the image data definition file may be found.
9. (Cancelled)
10. (Currently Amended) The nuclear camera system of claim 1, further comprising A  
~~nuclear camera system comprising:~~  
~~a detector which acquires radionuclide event data;~~

~~an image processor which processes the event data to produce image data;~~  
~~an acquisition controller which acts to control the detector to acquire event data in accordance with a study protocol; and~~  
a control data storage medium, coupled to ~~the~~ an acquisition controller, which stores control data in an extensible and open data format.

11. (Original) The nuclear camera system of Claim 10, wherein the control data is stored in xml format.

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) A radiation based diagnostic imaging system including:  
a detector which acquires radiation data;  
an image processor which processes the radiation data to produce image data;  
a control data storage medium, coupled to the acquisition controller, which stores the control data in an xml format; and  
an acquisition controller which executes a script utilizing an xml file to control the acquisition of the radiation data.

15. (Previously Presented) The system of Claim 14, wherein the xml file utilized by the script is a protocol file of the form <protocol.xml>.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Previously Presented) A diagnostic imaging system including:

- a detector which acquires diagnostic data;
- an image processor which processes the diagnostic data to produce image data;
- an acquisition controller which controls the detector to acquire diagnostic data;
- a control data storage medium, couple to the acquisition controller, which stores control data in xml format;
- an image data storage medium, couple to the image processor, which stores image data in xml format; and
- a server coupled to the control data storage medium and the image data storage medium, which server accesses at least one of xml control data files and xml images data files and executes scripts which utilize xml control data files.

21. (Previously Presented) A nuclear camera system comprising:

- a detector which acquires radionuclide event data;
- an image processor which processes the event data to produce image data;
- an acquisition controller which acts to control the detector to acquire event data in accordance with a study protocol, wherein the acquisition controller executes a script utilizing an xml file to control the acquisition of event data; and
- a control data storage medium, coupled to the acquisition controller, which stores control data in an extensible and open data format.

22. (Previously Presented) A nuclear camera system comprising:

- a detector which acquires radionuclide event data;
- an image processor which processes the event data to produce image data;
- an acquisition controller which acts to control the detector to acquire event data in accordance with a study protocol;
- a control data storage medium, coupled to the acquisition controller, which stores control data in xml format, the control data comprising xml files provided by the camera system manufacturer and xml files modified or created by a camera user; and
- a user interface and a server, responsive to the user interface and coupled to the

control data storage medium and the image data storage medium, which accesses xml control data files or xml image data files in response to user commands wherein the server executes scripts which utilize xml control data files.

23. (New) A method of acquiring nuclear medicine images comprising:

- acquiring emission data from an imaged subject;

- processing the emission data to produce image data;

- storing the image data; and

- incorporating new user data format requirements into the processing data without requiring a manufacturer's proprietary image format conversion routine;

- wherein the image data is stored in a format that allows for such incorporation of new user data format requirements.

24. (New) The method of claim 23 wherein the image data is stored in xml format.

25. (New) The method of claim 23 further comprising controlling acquisition of the emission data with scripts written in an open and extensible format.

26. (New) An medical imaging system comprising:

- means for acquiring emission data from an imaged subject;

- means for processing the emission data to produce image data;

- means for storing the image data; and

- means for incorporating new user data format requirements into the processing data without requiring a manufacturer's proprietary image format conversion routine;

- wherein the image data is stored in a format that allows for such incorporation of the new user data format requirements.

27. (New) The medical imaging system of claim 26 wherein the image data is stored in xml format.